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Amendments to the Drawings

The attached sheet of drawing includes changes to Fig. 6.

Attachment: Replacement Sheet 4.

Remarks/Arguments

Claims 1-9 are pending and are subject to restriction requirement.

Claims 2 and 6 are amended to correct typographical errors and FIG. 6 is amended to add a symbol indicating an input to the control circuit 100.

Drawings

FIG. 6 is amended to include an IN box between the control circuit 100 and the photo diode detection circuit 122. As in FIG. 1, this IN box indicates the input to the control circuit 100. See, for example, page 4, lines 15-16. No new matter is added. It should be noted that the control circuit 100 in FIG. 6 is the same as the control circuit 100 in FIG. 1. See, for example, page 7, lines 6-9.

Restrictions

At the outset, applicants are unable to make a selection because the Office Action fails to specify the species/sub-species of each claim.

Applicants also disagrees that the claims are directed to two patentably distinct species, one directed to the circuit in FIG. 1 and the other to the circuit in FIG. 6, as alleged. As indicated above, the circuits in FIGs. 1 and 6 share the same control circuit 100, and independent claims 1, 5, and 9 are directed to the control circuit 100 in both FIGs. 1 and 6 using the voltage responses shown in FIGs. 4 and 5. These independent claims automatically detect the circuit configuration (e.g., PNP and NPN) of a laser diode and initialize the control of the power supply for the laser diode correspondingly. See for example, page 2, lines 18-21. As such, independent claims 1, 5, and 9 are directed to the same invention and no restriction is required.

Independent claim 1, for example, is a generic claim covering both circuits in FIG. 1 and FIG. 6. Claim 1 recites a method for initialising a control of a supply voltage of a light source, such as a laser diode, the light source being arranged in a first circuit configuration having an associated first reference voltage level or the light

source being arranged in an alternative second circuit configuration having an associated alternative second reference voltage level, the method comprising the steps of:

- *gradually changing the supply voltage into the direction of the first reference voltage,*
- *measuring a light emission of the light source while gradually changing the supply voltage,*
- *if no light emission is measured: starting the control of the supply voltage of the light source after the first reference voltage has been reached,*
- *if a light emission is measured: gradually changing the supply voltage into the direction of the second reference voltage and starting the control of the supply voltage of the light source after the second reference voltage has been reached.*

The supply voltage is supplied to a laser diode (the light source) at the OUT terminal of the control circuit 100 in both FIGs. 1 and 6. The voltage responses of PNP and NPN laser diodes are shown in FIGs. 4 and 5. The recited first and second circuit configurations correspond to the PNP and NPN circuit configurations. In the first step, the supply voltage is changed into the direction of the first reference voltage, which in the example of FIGs. 4 and 5 is VREFPNP. In the second step, the light emission from the diode is measured by the measuring diode 118 in FIGs. 1 and 6. According to FIGs. 4 and 5, if the laser diode is a PNP type, no light emission is detected at the IN terminal in FIG. 1 and in the first IN terminal in FIG. 6, and if the laser diode is an NPN type, light emission will be measured and the supply voltage is changed into the direction of the second reference voltage, which is VREFNPN in FIG. 5 before starting the control of the supply voltage. This determination is performed in steps 3 and 4. For details of the operation, please refer to FIGs. 4 and 5 and their description in the specification. The additional photo diode detection circuit 122 in FIG. 6 is recited in claim 4, which directly depends from claim 1.

Independent claims 5 and 9 recite similar features as those recited in independent claim 1 and cover both FIGs. 1 and 6 using the voltage responses shown in FIGs. 4 and 5. As such, claims 1, 5, and 9 are directed to the same invention.

No independent claim is directed to the detailed embodiments in FIGs. 2 and 3 for the safety block 108. As such, the selection of species A and B is not necessary as well.

Conclusion

Having fully addressed the Examiner's objections and rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicants' attorney at (609) 734-6813, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Fee

No fee is believed due. However, if a fee is due, please charge the fee to Deposit Account 07-0832.

Respectfully submitted,
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RSL:pdf

Attachment: Replacement Sheet 4

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